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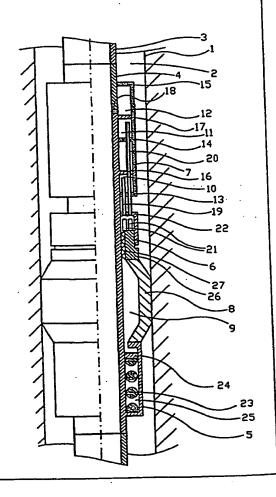
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(54) Title: DEVICE BY TOOLS FOR SETTING OF A PRODUCTION PACKER

(57) Abstract

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The invention relates to a device by a tool for the setting of an inflatable packer within an annulus (2) between a pipe string (3) and a borehole wall (1) of a production well for hydrocarbons. The main object of the invention is that a packer element (8) arranged thereto shall be inflated by means of, e.g., a two-component thermosetting plastic, and that this is to take place by a more moderate pressure than what has been normal. This is realised in the way that the tool comprises a sleeve element (4), three housing elements (5, 6, 7) positioned externally on the sleeve element (4), and a packer element (8) extending between two of the housing elements (5, 6). The third housing element (7) is arranged so, that the thermosetting plastic is transferred from the housing element (7) to an annular chamber (9) of the tool between the sleeve element (4) and the packer element (8), so that the packer element (8) is inflated into sealing abutment against the bore wall (1) of the well, when, e.g., well fluid from the pipe string (3) is supplied to the housing element (7) at the same time. By the configuration of the third housing element (7) with more chambers (10, 11) for thermosetting plastic than chambers (12) for the well fluid from the pipe string (3), the packer element (8) is inflated at a pressure which is lower than the pressure from the well fluid supplied to the housing element (7).



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C. DOCUMENTS CONSIDERED TO BE RELEVANT		Relevant to claim No.				
Category Citation of document, with indication, where appro	egory* Citation of document, with indication, where appropriate, of the relevant passages					
A US 3575238 A (H.E. SHILLANDER), 2 (20.04.71)	0 April 1971	1-16				
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A US 3750750 A (H.J. URBANOSKY), 7 (07.08.73)	August 1973	1-16				
						
GB 1159534 A (MINERALIMPEX), 30 (30.07.69)	GB 1159534 A (MINERALIMPEX), 30 July 1969 (30.07.69)					
						
A GB 2300015 A (BAKER HUGHES INCOR 23 October 1996 (23.10.96)	GB 2300015 A (BAKER HUGHES INCORPORATED), 23 October 1996 (23.10.96)					
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	tent document in search repor	.	Publication date	1	Patent family member(s)		Publication date	
US	3575238	A	20/04/71	NONE				
US	3750750	Α .	07/08/73	NONE				
GB	1159534	Α	30/07/69	NONE				
GB	2300015	Α	23/10/96	AU AU CA GB NO US	709878 5065996 2174174 9607924 961505 5582251	A A D A	09/09/99 31/10/96 18/10/96 00/00/00 18/10/96 10/12/96	